

WHAT IS CLAIMED IS:

1. A method of machining a plurality of workpieces in an unmanned manner, comprising the steps of:

holding, with a jig, a first one of the workpieces,

attaching the jig holding the first workpiece, to a workpiece holding device of at least one machining device, so that the first workpiece is machined by the machining device,

detaching, after the machining of the first workpiece, the jig holding the first workpiece, from the workpiece holding device,

removing the first workpiece from the jig, and

holding, with the jig, a second one of the workpieces, and

repeating the attaching step, the detaching step, and removing step.
2. A process according to claim 1, wherein the attaching step comprises attaching the jig holding the first workpiece, to a workpiece holding device of each of a plurality of machining devices which are arranged to provide a machining line, while automatically moving the jig from an upstream one of the machining devices to a downstream one of the machining devices, so that the first workpiece is machined by said each of the machining devices.

3. A process according to claim 1, wherein each of the machining devices comprises a machining center.

4. A process according to claim 2, wherein the attaching step comprises operating a movable robot which is movable along the machining line, to hold the jig holding the first workpiece, carry in the jig to said each of the machining devices, and attach the jig to the workpiece holding device of said each machining device, and wherein the detaching step comprises operating the robot to hold the jig holding the first workpiece, detach the jig from the workpiece holding device of said each machining device, and carry out the jig.

5. A process according to claim 4, wherein the removing step further comprises operating the robot to hold the jig from which the first workpiece has been removed, and return the jig from said downstream machining device to said upstream machining device.

6. A process according to claim 4, wherein at least one of the holding step and the removing step comprises operating the

robot to perform a corresponding one of attaching the first workpiece to the jig and removing the workpiece from the jig.

7. A jig, comprising:

a main body; and

a fixing device which continues to fix a workpiece to the main body without receiving an external action such as transmission of a force or supplying of an energy,

the fixing device comprising a clamp member which is engageable with the workpiece; and a clamp-member moving device which moves the clamp member to an operative position thereof where the clamp member engages the workpiece and thereby fixes the workpiece to the main body, and to an inoperative position thereof away from the operative position,

the clamp-member moving device comprising a spring member which applies an elastic force to the clamp member and thereby biases the clamp member toward the operative position thereof.

8. A jig according to claim 7, wherein the clamp-member moving device further comprises a pressurized-liquid-operated actuator which is supplied with a pressurized liquid and moves, by utilizing a pressure of the liquid, the clamp member to the inoperative position thereof.